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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/940,787	08/29/2001	Satoshi Suzuki	010966	4600

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EXAMINER
SERGENT, RABON A

ART UNIT	PAPER NUMBER
1711	13

DATE MAILED: 02/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/940,787	Applicant(s) Suzuki et al.
	Examiner Rabon Sergent	Art Unit 1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Dec 10, 2002*.

2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-17* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-17* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____
4) ☐ Interview Summary (PTO-413) Paper No(s). _____
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

1. Claims 1-17 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicants have failed to provide a clear indication of how the claimed hardness values are to be interpreted and have not recited a scale or unit in association with the claimed hardness value. In response to the Office action of November 30, 2001 and the letter of May 20, 2002, applicants have furnished a chart which compares various hardness scales. The chart indicates that as hardness values increase, the polymer becomes softer; however, this is incorrect. With respect to Shore A and Shore D hardness values, the hardness increases as the number value increases. As a result, the accuracy of the chart is suspect, and no other reliable means of comparing the respective hardness scales has been provided. Despite applicants' response, clarification of the record is deemed to be necessary in view of the above remarks with respect to the furnished chart, and applicants have not addressed these remarks within the response of December 10, 2002.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless -
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 3 are rejected under 35 U.S.C. 102(b) as being anticipated by Werner ('606).

Patentee discloses a polyurethane elastomer, suitable for use in the manufacture of tires, comprising the reaction product of a chain extender with a prepolymer derived from the reaction of a polyisocyanate with a blend of a major amount of a polytetramethylene ether glycol and a minor amount of a polypropylene ether glycol. Hardness values exceeding 40 are disclosed for the polyurethane. Patentee further discloses the use of a plasticizer. See abstract and examples. The position is taken that the index ratio of the disclosed polyurethane (column 2 of the reference) meets the ratio disclosed within the instant invention (page 8 of the specification); therefore, the disclosed polyurethane, suitable for use within friction type applications, is considered to inherently possess the claimed features of the composition.

4. Firstly, despite applicants' response, the claims are directed solely to a composition and the position is taken that the statement of intended use is not considered to carry patentable weight. The statement of intended use would only carry patentable weight if applicants provided conclusive evidence that the composition of Werner could not function as a sheet transport roll of a copying machine. Applicants have provided no such evidence or reasoning why a composition suitable for use in a friction application (i.e., tires) would not work in another friction application (i.e., sheet transport roll). Secondly, applicants have provided no evidence that the composition of Werner does not inherently possess the claimed properties. Lastly, applicants appear to argue that the use of the composition will determine its cured hardness value; however, this position is not understood, because the use of the composition will have no bearing on the cured hardness of the composition.

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by G.B. 1044040.

The reference discloses a polyurethane elastomer, suitable for use in the manufacture of solid tires (page 3, line 63) comprising the reaction product of a chain extender with a prepolymer derived from the reaction of a polyisocyanate with a blend of a major amount of a polytetramethylene ether glycol and a minor amount of a polypropylene ether glycol. Hardness values exceeding 40 are disclosed for the polyurethane. See entire document. The position is taken that the index ratio of the disclosed polyurethane (page 1, line 74 of the reference) meets the ratio disclosed within the instant invention (page 8 of the specification); therefore, the

disclosed polyurethane, suitable for use in friction type applications, is considered to inherently possess the claimed features of the composition.

6. As aforementioned within paragraph 4, firstly, despite applicants' response, the claims are directed solely to a composition and the position is taken that the statement of intended use is not considered to carry patentable weight. The statement of intended use would only carry patentable weight if applicants provided conclusive evidence that the composition of G.B. 1044040 could not function as a sheet transport roll of a copying machine. Applicants have provided no such evidence or reasoning why a composition suitable for use in a friction application (i.e., tires) would not work in another friction application (i.e., sheet transport roll). Secondly, applicants have provided no evidence that the composition of G.B. 1044040 does not inherently possess the claimed properties. Lastly, applicants appear to argue that the use of the composition will determine its cured hardness value; however, this position is not understood, because the use of the composition will have no bearing on the cured hardness of the composition.

7. Claims 2 and 4-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 9-12192 in view of EP 565237 and either G.B. 1044040 or Werner ('606).

The Japanese reference discloses a polyurethane roller, suitable for sheet transport operations, wherein the polyurethane has a JIS-A hardness value of 40-70. See abstract.

8. The abstract of the reference is silent regarding the composition of the polyurethane; however, polyurethanes having a hardness characteristic and dynamic properties suitable for use in the production of rollers were known at the time of invention. Both G.B. 1044040 and Werner

disclose such polyurethanes, based on blends of polypropylene ether glycol and polytetramethylene ether glycol. These references additionally teach that their urethanes are suitable for use in friction type applications, such as the production of tires. See paragraphs 3-6 for further discussions of these references. Furthermore, the use of conductive particles or additives within polyurethane transport rolls was known at the time of invention as a means of controlling electrostatic characteristics in transport operations. See EP 565237. Lastly, the use of filler materials, including hollow fillers, within polyurethanes to control physical properties was a conventional practice at the time of invention.

9. Therefore, the position is taken that it would have been obvious to produce the rollers of the primary reference using the polyurethanes of the secondary references, known to be useful for producing rotating components suitable for use in friction type applications (i.e., tires) and further to incorporate known roller additives such as conductive particles and hollow fillers, so as to obtain a roller having a polyurethane cover possessing optimal physical and electrostatic characteristics.

10. Despite applicants' response, the examiner has set forth clear rationale as to why one of ordinary skill would have been motivated to employ the urethane compositions of the secondary references, known to be useful in roller transport or friction operations, in the production of the polyurethane rollers of the primary reference.

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

RABON SERGENT
PRIMARY EXAMINER

R. Sergent

February 23, 2003